



Key Considerations from Primer

The program must play an essential role to report on this measure. An essential role is one that would be described by stakeholders and partners as essential for the project's ultimate success.

When a program has a non-essential role, describe the the project's impacts or accomplishments in narrative form for the annual report but do not include these the performance measures and metrics.

- ▶ Not everything needs a number
- ▶ Count what you can count
- ▶ Sometimes a story is best
- ▶ If it's too complicated, report it as an Impact or Accomplishment
- ▶ Do not seek out nor shy away from large numbers. Larger benefits are ok but should be reviewed with added rigor
- ▶ Do not use multipliers
- ▶ Include citations in reporting to enhance clarity, defensibility, and transparency.

General Revenue and Cost Savings ¹

Sea Grant programs provide a wide assortment of impacts and benefits—often helping entities increase their revenue and/or save money and avoid costs. This methodology guide captures a general approach for reporting increased revenue or costs savings not already captured in other methodology guides. Specifically, this guide serves as a generic “catch-all” that provides a variety of previously reported examples and how they could be best captured. We recognize that this guide may not work in all situations and that there may be examples where it is difficult to apply the valuation methodologies shown here.

Examples

Here are several slightly modified examples that illustrate the diverse types of increased revenue and costs savings reported to Sea Grant's Planning, Implementation, and Evaluation Resources (PIER)² database. For each example, we provide our thoughts about what the Sea Grant program did well and what could be improved.

Increased Revenue

1 Increasing business revenue by raising buyer awareness: Direct-to-consumer sales are helping commercial fishermen stay financially afloat during difficult economic times. Sea Grant created a program to help regional commercial fishermen and others in the seafood industry develop an internet-based direct marketing effort to promote a local seafood and farmers market, which the region holds 10 times per year. Sea Grant partnered with other organizations to conceive and develop the project, and it produced a video about direct sales to help raise consumer awareness about this purchasing opportunity. The port director says that each of the 10 seafood and farmers markets average \$50,000 in sales, for a total of \$500,000 annually (i.e., \$50,000 * 10).

✔ Sea Grant documented its role well, the calculation is clear, and the sources are cited.

✘ This story would be more compelling if it made a stronger case that it would be difficult to generate this revenue otherwise. For example, is there a way to show that these companies are generating more revenue because of Sea Grant's efforts? Or is the seafood and farmers market just a slightly better and easier sales venue for their product, which they could possibly still sell for cheaper somewhere else? In short, the story should more strongly state what portion of the \$500,000 was directly attributable to Sea Grant.

2 Increasing business revenue by connecting to buyers: To increase fishermen's direct sales, Sea Grant organized and led “Shop the Dock” tours, which taught consumers how to buy seafood directly from fishing vessels. During the tours, the staff discussed regulations, sustainability, fishing practices, and what to look for when buying seafood. Sea Grant counted 354 attendees/consumers, and 142 of those returned the Sea Grant survey. Fishermen surveyed (19) reported sales of at least \$10,421.

1. This methodology guide was developed to help Sea Grant and other coastal engagement programs calculate and characterize the economic benefits and impacts of their program activities. This methodology guide is a tool and does not constitute official guidance from the National Sea Grant Office for reporting economic benefits and impacts.

2. Sea Grant programs use PIER to submit their impacts, accomplishments, performance measures, and metrics to the National Sea Grant Office.

✓ Sea Grant's contribution is well-documented, and separate consumer and fishermen surveys were cited as the data source.

✗ The calculation is unclear based on the story above. It would help to know if the survey data demonstrate whether "Shop the Dock" tours increased sales and by how much.

3 Increasing business revenue based on research and information: Sea Grant research informed fishery management decisions, which allowed a fishery to land more revenue. Specifically, a fishery remained open for 19 days longer than it would have if the allocation for harvesting seafood had not quadrupled (a decision informed by Sea Grant research) to \$485,000/month. The program reported a \$300,000 economic impact.



✓ Sea Grant clearly stated its role and impact—the fishery remained open 19 days longer than it would have without Sea Grant research.

✗ It would have been more compelling to describe the research and the resulting fishery management decisions, and how these decisions differed from management decisions in the past. Clarifying where the \$485,000 came from would increase transparency and defensibility.

4 Increasing production based on technology: A Sea Grant marine advisory agent provided specialized equipment to nine oyster farmers, which helped increase their production.

✓ Sea Grant clearly stated its role and value. This is defensible as written.

✗ It would have been more transparent and compelling to show a calculation for the total production increase.

Cost Savings

1 Avoiding environmental costs by providing extension help: A Sea Grant extension specialist helped prevent the spread of a quagga mussel invasion to two lakes/reservoirs. "Responding and managing an invasion of quagga mussels results in a cost of millions of dollars per year." Therefore, \$2 million is a conservative estimate.

✓ Sea Grant clearly stated its role—preventing the spread of quagga mussels—and what was affected—two lakes/reservoirs.

✗ The story would be more defensible if it clearly stated how the Sea Grant extension specialist helped prevent the spread. The quote is also not cited, and it would be more defensible to show where the number came from and if it is a reasonable number to apply in this situation.

2 Saving a local government money by providing services: Sea Grant removed trash and debris from a riparian seasonal wetland, providing \$20,822 in city trash removal services.

✓ Sea Grant clearly stated its role and impact, and these are defensible cost savings.

✗ It would be more compelling to include how many hours and people Sea Grant provided and how the calculation was performed.

3 Saving a business money valuable information: Sea Grant worked as a consultant to eight shrimp farms to determine appropriate stocking sizes of shrimp post-larvae and the effect on shrimp harvests. Working together, Sea Grant and the farmers drafted a plan that was implemented at all the shrimp farms. Within one year, the farms realized a total savings of \$56,112 by using the improved post-larval stocking program.

✓ Sea Grant clearly described how it planned, implemented, and saved the farmers money.

✗ It would be more transparent to show the calculation behind the \$56,112 savings.

4 Saving businesses money through technology transfer: New self-cleaning aquaculture tank technology improves the survival of marine finfish larvae and saves labor costs. The cost savings is the labor gained from using a self-cleaning tank compared to a traditional tank in a realistic hatchery setting. The time saved by using a self-cleaning tank is approximately 30 minutes. The labor cost saved is \$25,200 per tank/per year; a total of seven tanks were sold in 2016.

✓ Sea Grant clearly states how the technology leads to an economic impact.

✗ Without an understanding of how Sea Grant contributed to this effort, the impact cannot be defensibly claimed.

5 Supporting businesses and jobs with proactive planning: Commercial maritime traffic relies on land use planning that sustains high-paying port employment. Without a land use plan, the maritime transport industry erodes at a rate of approximately 1.5 percent per year, whereas good land use planning can sustain maritime economies while creating additional benefits to local economies (citation provided). Sea Grant personnel chaired the land use planning effort in 2016, bringing forward a plan that the surrounding city councils ratified. According to a [peer-reviewed report by Martin and Associates](#), land use planning supports annual commercial activities that sustain a \$1.5 billion industry and 11,510 jobs paying an average of \$43,467. Sea Grant actions can conservatively be credited with 1 percent of the income realized from the improved land use plans: ~\$1.5 billion revenue * 1.5 percent planning effect on revenue * 1 percent contribution = \$223,000.

✓ This is very well-written—Sea Grant stated its role clearly, transparently stated and cited the assumptions, and showed the calculations.

✗ If possible, it would help to show the basis of Sea Grant's 1 percent contribution—e.g., just state it was conservatively based on level of effort relative to all partners and contributors.

Present Your Story as a Value Chain

Value chains illustrate the sequence of events or activities that result in an economic impact or benefit. Consider developing a value chain diagram to help you tell a compelling and defensible story about how your Sea Grant program, product, or service generated a measurable result.



Let's use an example to illustrate how to create a value chain. *A Sea Grant coastal engineer [the program/product/service] works with the port to protect its structures from the results of accelerated freshwater corrosion of steel plates [what was affected]. Sea Grant helped determine the causes of and mitigation strategies for this costly problem [what was done to get impact]. Due to this work, the harbor assistance program now requires all granted projects within the harbor to use this Sea-Grant-determined protection. In 2016, mitigation was carried out for four critical areas to coat 3,232 feet of sheet pile [measurable change]. Had that infrastructure required replacement, the cost would have been close to \$4.9 million [societal economic impact] (sheet pile replacement cost is estimated at \$1,500 per square foot).*



Recommended Methodology and Best Practices

There is no prescribed method for the many types of cost savings and increased revenue that happen across Sea Grant programs. The important general rule to follow is to craft your story as a value chain to defensibly link your program to a measurable change. Ensure that you justify key assumptions and provide proper citations.

Factors to Consider in Communicating Benefits

You should consider the following differences when reporting your economic impact or benefit to Sea Grant's PIER database versus communicating its value in other outreach pieces (e.g., fact sheets, websites, impact statements, accomplishment statements).



	Performance Measure Reporting in PIER	Impact Statements and Other Outreach
Recurring Benefits	<p>Year 1: Report the savings or revenue.</p> <p>Year 2 and beyond: Only count the annual savings or revenue if you are providing active assistance for implementing a practice, using the technology, or otherwise achieving the impact. Do not count benefits or impacts beyond the years you are providing active assistance.</p>	<p>Year 1: Count the savings or revenue (same as PIER).</p> <p>Year 2 and beyond: Continue to count the annual savings or revenue as long as you can confirm the impact is still occurring. Stop counting the revenue or savings if you cannot confirm the impact is still occurring OR when someone could argue the impact would have been achieved by common practice anyway (e.g., that is now commonplace).</p>
Attribution	<p>Avoid double counting when multiple Sea Grant Programs are involved. Multiply the final \$value by the fraction of your level of effort (LOE) divided by total Sea Grant LOE (e.g., you provided 400 hours, Sea Grant program 2 provided 600 hours, and another organization provided 500 hours). Multiply the final \$value by 40% (i.e., your 400 hours / 1,000 total Sea Grant hours [600 + 400]). The other Sea Grant program will multiply by 60%. Together, the two Sea Grant programs are now claiming they were essential contributors to the full \$value (without double counting). Note, the Sea Grant programs are claiming they were an essential contributor to the full value, but not the only contributors to this full value.</p>	<p>There is generally no need to attribute the value of your contribution; simply state you played an essential role in a project that provided \$X in increased revenue or cost savings and ensure your role is transparent and well-described to tell an effective story. If you need to attribute your LOE for outreach, use your percent LOE as a rough estimate (e.g., Sea Grant contributed 300 hours out of a total 1,000 hours, so it contributed 30 percent).</p>
Very Large Benefits	<p>Do not shy away from or seek out large numbers: Large numbers both get people's attention and cause them to question the methods used. This applies to all benefits or impacts, but for very large benefits or impacts in particular, ensure that you develop a value chain that strongly links your program's action to quantitative results and that you document your assumptions well and cite your sources.</p>	

These guides are reference tools only and do not constitute formal performance measure or reporting guidance.

Please contact oar.sg.info-admin@noaa.gov with any reporting questions.